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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,025	01/28/2002	Hirofumi Ito	13888	2222

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EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/056,025	<b>Applicant(s)</b> ITO ET AL.	
	<b>Examiner</b> TUNG T. VO	<b>Art Unit</b> 2613	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 12-16, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) 7-11, 17-25 and 28-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-16, 26, 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/28/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-6, 12-16, 26-27 in the reply filed on 11/30/2004 is acknowledged. The traversal is on the ground(s) that is based on a lack of showing in the Restriction Requirement, pages 1 and 2. This is not found persuasive because the inventions Groups I, III, IV, V and I are related as combination and subcombination but each of the invention uses for each purposes. The relationships between inventions are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP j 806.05(c)). Therefore, the requirement is still deemed proper and is therefore made FINAL.

Since the applicant elected Group I-claims 1-6, 12-16, 26 and 27 for examination purpose, claims 7-11, 17-25, 28-31 that are nonelected groups and need to be withdrawn.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 01/28/2004 has considered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2613

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-6, 12-16, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Dinwiddie, Jr. et. (US 5,434,590).

Re claims 1, 12, and 26, Dinwiddie discloses an image generating apparatus (fig. 1) is programmable to generate intermediate frames (composes frames) based on key frames (color key match signal, color key frame) and corresponding point data between the key frames (match signal), the apparatus comprising:

a performance specifying unit (16 and 30 of fig. 1) which determines a processing performance of the apparatus (the background plane is provided by a processor 36 of fig. 1, a full motion video signal is provided by programmable receiver 38 of fig. 1, and an image signal is provided by graphic accelerator module 34 of fig. 1); and

a resolution decision unit (39, 39a, 39b, 39c and 14 of fig. 1) which determines resolution of the intermediate frames to be generated according to the processing performance determined by said performance specifying unit (col. 5, lines 40-49).

Re claims 5, 13, and 27, Dinwiddie further discloses an intermediate frame generator (34, 36, and 38 of fig. 1) generates intermediate frames (composed image) according to the resolution determined by said resolution decision unit (16, 30, and 39 of fig. 1).

Re claims 3 and 14, Dinwiddie further discloses wherein said performance specifying

unit determines the processing performance by determining whether or not there is an optional accelerator available for use by the apparatus (16, 30, and 34 of fig. 1, e.g. the user can determine which processing is used in the system 12 of fig. 1).

Re claims 4 and 15, Dinwiddie further discloses wherein said performance specifying unit determines the processing performance by determining a processing speed of a CPU of the apparatus (a processing speed of CPU (12 of fig. 1) is in accordance the speed of the display device (14 of fig. 1), wherein the display device presents the composed image at a predetermined presentation speed).

Re claims 6 and 16, Dinwiddie further discloses wherein said performance specifying unit experimentally generates intermediate frames in the apparatus and determines the processing performance of the apparatus based thereon (12, 14 of fig. 1, e.g. the apparatus (10 of fig. 1) experimentally generates the intermediate frames, composed frames).

5. Claims 1-2, 5, 12-13, 16, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Szeliski (US 6,487,304 B1).

Re claims 1, 12, and 26, Szeliski discloses an image generating apparatus is a personal computer (20 of fig. 2) is programmable to generate intermediate frames based on key frames and corresponding point data between the key frames (fig. 3, e.g. the process of generating the intermediate frames based on keys frame, see col. 9, line 52-col. 10, line 8), the apparatus comprising:

a performance specifying unit which determines a processing performance of the apparatus (20 of fig. 2, e.g. the personal computer (20) determines which program (35-38 of fig.

2) is used to process the keyframes to form an intermediate frames (fig. 2) of the apparatus (fig. 2), the computer can also determine the performance of keyframes processing and the multi-view resolution estimate); and

a resolution decision unit (20 and 21 of fig. 2) which determines resolution of the intermediate frames to be generated according to the processing performance determined by said performance specifying unit ( col. 10, line 9-51, e.g. a multi-resolution is generated for every image in the image set based on the determination process, see fig. 6, multi-view estimation).

Re claims 2, 13 and 27, Szeliski further discloses an intermediate frame generator (20 and 21 of fig. 2), which generates intermediate frames according to the resolution determined by said resolution decision unit (col. 8, lines 23-27, e.g. interpolating process is applied).

Re claim 5, Szeliski further discloses wherein said determining the processing performance is carried out by the apparatus (20 of fig. 2).

Re claim 16, Szeliski further discloses wherein said performance specifying unit experimentally generates intermediate frames in the apparatus and determines the processing performance of the apparatus based thereon (processing unit 21 of fig. 2 generating the intermediate frames and also determines the processing performance).

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chakraborty et al (US 6,462,754 B1) discloses a method and apparatus for authoring and linking video documents.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUNG T. VO whose telephone number is 703-308-5874. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TUNG T. VO**  
**PATENT EXAMINER**

T.Vo

TUNG T. VO  
Primary Examiner  
Art Unit 2613